

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Due Date: \_\_\_\_\_

**When solving the following problem, be sure to:**

- 1) Restate the Question**
- 2) State your answer in a complete sentence (reference the question).**
- 3) Show work and/or explain solution strategy**

### **Square Dancing**

To raise money for supplies, the Art Club held a dance contest. Ashley was in charge of assigning numbers to the contestants. She kept the number 1 for herself and assigned 2 through 18 to the other participants.

While the students were dancing, I happened to notice that the sum of each participant's number and the number of his or her partner was a perfect square. What number did Ashley's partner wear?

**Bonus:** The amount of money raised was equal to the sum of the products of each couple's numbers. How much money did they raise?

Please remember to write your final answer in a complete sentence.

Please answer the problem on a separate piece of paper. You must include all your calculations and an explanation of how you got your answer. Your paper will be scored in the following way:

- 4 The answer and the bonus are correct, you have included all your calculations, and the explanation is thorough and understandable.
- 3 The answer is correct, you have included all your calculations, and the explanation is complete and clear to the reader.
- 2 The answer is missing one of the items mentioned above.
- 1 The answer is incorrect, and the explanation or calculations are poor or missing.
- 0 Minimal or no effort was made to solve the problem.
- All late work is marked down a grade.